## Appendix E: Fire Programs

### E-1: Comparison of Existing NM Smoke Management Program with RHR Requirements

New Mexico has evaluated its existing smoke management program to determine whether the requirements of the Regional Haze Rule and recommendations of the WRAP *Enhanced Smoke Management Program Policy* are met. New Mexico currently manages smoke emissions through a Memorandum of Understanding (MOU) with the federal and state land management agencies.

The current smoke management program in New Mexico addresses visibility impacts on a case-by-case basis. The new smoke management program (SMP) requires tracking, monitoring, regional coordination, and, for larger burns, the implementation of at least one emission reduction technique, which will assist in minimizing visibility impacts in the face of increasing prescribed fire.

The following table is a summary of the analysis of the current MOU along with the requirements of the new SMP and Smoke Management Regulation (20.2.65 NMAC).

| RHR Requirement/ESMP Recommendation | Current MOU | Smoke Management Program and Regulation (20.2.65 NMAC) |
|---|---|---|
| Actions to minimize emissions | Case-by-case determination by burner for use of the "best smoke management techniques" | For burns over 1 ton PM-10 emissions per day, requires use of at least one ERT* |
| Evaluation of smoke dispersion | Smoke dispersion modeling required to determine compliance with NAAQS; burning only during ventilation conditions of good or better. | For burns over 1 ton PM-10 emissions per day, requires visual monitoring; state may decide to conduct instrument monitoring. Burns can only be conducted if ventilation category is "Good" or better. For burns less than 1 ton PM-10 emissions per day, requires 300-foot setback from occupied structure or place where people congregate and burn only during daylight hours; or burner may choose to follow visual monitoring and ventilation category requirements. |
| Alternatives to fire | For burns with potential visibility impacts on Class I areas and smoke-sensitive areas, signatories must minimize smoke including employment of alternatives to the extent they are environmentally acceptable, technologically feasible and economically reasonable. | For burns over 1 ton PM-10 emissions per day, requires documentation of alternatives analysis. |
| Public notification | Agencies must notify appropriate local agencies as required in their burn plan. | Requires notification of local fire authority; for small burns within 1 mile of a population, or larger burns within 15 miles (or 15 miles upwind) of a population, requires public notification. |

| RHR Requirement/ESMP Recommendation | Current MOU | Smoke Management Program and Regulation (20.2.65 NMAC) |
|---|---|---|
| Air quality monitoring | State may require land management agency to conduct instrument monitoring. | For burns over 1 ton PM-10 emissions per day, requires visual monitoring; state may decide to conduct instrument monitoring on burns close to populations. |
| Surveillance and enforcement | All prescribed burning is subject to inspection. State may revoke permits and take any other enforcement action authorized under state or federal statutes, rules and regulations. | Regulatory requirements, if not met, are subject to enforcement. |
| Program evaluation | Annual program evaluation and meeting with signatories. | Annual program evaluation and meeting with burners and other stakeholders. |
| Regional coordination | None. | State uses notifications to predict air shed capacity; state works within WRAP on inter-jurisdictional coordination. |
| Tracking/emission inventory | Requires annual reporting of fire activities. | All burners are required to submit tracking forms; state will use this information to calculate emissions. |
| Burn authorization | Permits issued by state to federal or state burners. | "Permit-by-rule" – burners are required to register in advance of burns, submit notification one day in advance for burns greater than 1-ton PM-10 emission per day; state determines airshed capacity and may require burners to modify or postpone burns. |

*ERT – Emission Reduction Technique

## E-2: Description of Process to Identify and Remove Administrative Barriers to the Use of Non-burning Alternatives

In the registration form required for burns conducted under SMP II, New Mexico requires burners to identify why alternatives to burning have not been used. The state will collect this data and analyze it to determine whether administrative barriers to the use of alternatives exist. This will be a topic of discussion at the annual program evaluation meeting to be held each year in January with all burners. Should it be determined that a specific administrative barrier exists, New Mexico will contact the appropriate agency to determine how this barrier may be removed and will work collaboratively with the agency and the burners to remove the barrier.

To determine whether administrative barriers exist and whether they can be removed, the State of New Mexico will follow these steps:

1. Review registration form for information on non-use of alternatives.

2. Tabulate information on alternative non-use.

3. For those cases which appear that administrative barriers may exist, interview burner to obtain additional information.

4. Bureau chief to contact appropriate agency to request meeting to discuss barrier.

5. Continue meeting as necessary and determine whether barrier can be removed.

6. If barrier can be removed, work cooperatively with other agency to assist with removal of barrier.

During the development of the smoke management program, New Mexico identified an administrative barrier to the use of air curtain incinerators. New Mexico's current rules require a stationary source permit be obtained by owners/operators of these devices. New Mexico is currently preparing a "permit-by-rule" for air curtain incinerators. Utilizing air curtain incinerators in the place of broadcast or pile burning is considered an alternative to burning. Use of these devices can dramatically reduce smoke emissions as compared to pile or broadcast burning. The permit-by-rule will allow these sources to simply register the device with the state and operate them according to the requirements of the permit-by-rule. This has removed the administrative barrier of the requirement to obtain a construction permit pursuant to 20.2.72 NMAC.

**E-3: Process for Establishing Annual Emission Goals**

New Mexico will establish annual emission goals in a cooperative process with stakeholders. To establish the goal, New Mexico will review the registration data provided by burners for the upcoming burn year, the tracking data submitted by burners for the previous year, and evaluate the use of emission reduction techniques (ERTs) (both those tracked for the previous year and those planned for the upcoming year). These data will allow New Mexico to evaluate potential (for the upcoming year) and actual (from the previous year) emissions from fire in the absence of the use of ERTs and to determine the amount of emissions that were averted by the use of ERTs. New Mexico's smoke management program requires the use of at least one ERT for all prescribed fires with emissions of over one ton of PM-10 per day.

Annual emission goals will be established by following these steps:

1. Information from the tracking and registration forms will be evaluated to determine how many ERTs were planned to be used and how many were actually used for the previous year.

2. Emissions reduced from use of the ERTs will be determined.

3. Total emissions from fire in the absence of ERTs will be determined.

4. Anticipated use of ERTs from registration forms for the upcoming year will be determined.

5. During the annual program evaluation meeting with stakeholders held every January, New Mexico will review the gathered data with stakeholders. This data will be used to establish the annual emission goal for the upcoming year.

**Appendix E-4: Western Regional Air Partnership Policy on Enhanced Smoke Management Programs for Visibility**

## Appendix E-5: Western Regional Air Partnership Policy on Annual Emission Goals for Fire

## Appendix E-6: Western Regional Air Partnership Fire Tracking System Policy